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EPA Region 10
Office of the Regional Administrator



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October 29, 2018

Mr. Chris Hladick
Regional Administrator
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

BP Exploration (Alaska) Inc.
900 East Benson Boulevard
P.O. Box 196612
Anchorage, Alaska 99519-6612
(907) 561-5111

Re: Annual Report – 40 CFR 60 Subpart OOOOa

Dear Mr. Hladick:

Enclosed please find the BP Exploration (Alaska) Inc. (BPXA) annual compliance report for 40 CFR 60 Subpart OOOOa – *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015* (Subpart OOOOa). This report covers the annual compliance period from August 3, 2017 through August 2, 2018.

In accordance with 40 CFR 60.5420a(b)(1)(i) and (ii), the report is being submitted for the facilities shown in Table 1. All facilities are located in the **Greater Prudhoe Bay** (GPB) Field, which is located on the **Alaskan North Slope**.

Additional reporting elements are attached as follows:

1. Well affected facility reports in accordance with 40 CFR 60.5420a(b)(2); and
2. Well site fugitive emissions monitoring reports in accordance with 40 CFR 60.5420a(b)(7).

BPXA is subject to subject to fugitive emissions monitoring requirements under 40 CFR 60.5397a(f)(1) and (g)(1) for well sites located on the Alaskan North Slope. Fugitive emission surveys, resurveys, and component repairs conducted after August 2, 2018 are not included in this report.

Please note that well sites in the GPB Field are significant in geographical extent and include considerable amounts of equipment. For example, S Pad is approximately 45 acres in size and incorporates over 80 wells. It is not feasible to complete fugitive emissions monitoring surveys during a single calendar day, so surveys must be conducted over the course of multiple days. Therefore, multiple survey dates provided in this report for a given pad can represent a single survey.

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Table 1. BPXA Subpart OOOOa Summary of Affected Facilities Reported

Facility Site Name	US Well ID	Location Description	Latitude (NAD83)	Longitude (NAD83)	Affected Facility Identification
S-113BL1	50-029-23094-02-60	S Pad - GPB Field	70.35604	-149.03412	Well Affected Facility
S-129	50-029-23433-00-00		70.35360	149.03093	
S-200A	50-029-22846-01-00		70.35510	-149.03724	
L-118L1	50-029-23043-00-60	L Pad - GPB Field	70.35060	-149.32498	
L-205	50-029-23388-01-00		70.34980	-149.32818	
P1-20	50-029-22288-00-00	P1 Pad - GPB Field	70.39043	-148.58628	
P1-23	50-029-22690-00-00		70.39065	-148.58357	
DS 2	50-029-23547-00-00	DS 2 - GPB Field	70.27115	-148.48667	Collection of Fugitive Emissions Components at a Well Site
DS 3	50-029-20990-01-00	DS 3 - GPB Field	70.22883	-148.28499	
DS 4	50-029-21521-01-00	DS 4 - GPB Field	70.27359	-148.27941	
DS 6	50-029-20179-02-00	DS 6 - GPB Field	70.24341	-148.50169	
DS 7	50-029-20847-02-00	DS 7 - GPB Field	70.26849	-148.57401	
DS 9	50-029-20188-01-00	DS 9 - GPB Field	70.24255	-148.24423	
DS 11	50-029-21394-01-00	DS 11 - GPB Field	70.27409	-148.32713	
DS 14	50-029-20970-01-00	DS 14 - GPB Field	70.23824	-148.59402	
DS 15	50-029-22651-03-00	DS 15 - GPB Field	70.29845	-148.57740	
DS 16	50-029-21441-01-00	DS 16 - GPB Field	70.21008	-148.22919	
DS 17	50-029-21259-01-00	DS 17 - GPB Field	70.20615	-148.31556	
DS 18	50-029-23543-00-00	DS 18 - GPB Field	70.29637	-148.44638	
DS L1	50-029-23563-00-00	DS L1 - GPB Field	70.33589	-148.47279	
DS L2	50-029-21758-02-00	DS L2 - GPB Field	70.30435	-148.43976	
DS L3	50-029-23575-00-00	DS L3 - GPB Field	70.29740	-148.31885	
DS L5	50-029-21694-01-00	DS L5 - GPB Field	70.33351	-148.23889	
DS NK	50-029-22540-02-00	DS NK - GPB Field	70.34723	-148.20311	
DS PM1	50-029-22690-00-00	P1 Pad - GPB Field	70.39065	-148.58357	
A Pad	50-029-20841-01-00	A Pad - GPB Field	70.26520	-148.76039	
B Pad	50-029-21471-03-00	B Pad - GPB Field	70.26989	-148.67644	
C Pad	50-029-20129-03-00	C Pad - GPB Field	70.29554	-148.67093	
D Pad	50-029-23554-00-00	D Pad - GPB Field	70.29578	-148.76040	
E Pad	50-029-20576-03-00	E Pad - GPB Field	70.33861	-148.67143	
F Pad	50-029-21974-01-00	F Pad - GPB Field	70.33773	-148.77005	
G Pad	50-029-20553-04-00	G Pad - GPB Field	70.32197	-148.72315	
H Pad	50-029-21456-02-00	H Pad - GPB Field	70.29891	-148.84628	
J Pad	50-029-21721-01-00	J Pad - GPB Field	70.32636	-148.84251	
K Pad	50-029-21759-03-00	K Pad - GPB Field	70.33874	-148.61242	
L Pad	50-029-23048-02-00	L Pad - GPB Field	70.35026	-149.32881	
M Pad	50-029-20499-03-00	M Pad - GPB Field	70.33660	-148.96276	
N Pad	50-029-23560-00-00	N Pad - GPB Field	70.32021	-149.91336	
R Pad	50-029-20618-02-00	R Pad - GPB Field	70.34554	-148.90426	
S Pad	50-029-22735-01-00	S Pad - GPB Field	70.35495	-149.03728	
U Pad	50-029-21117-60-00	U Pad - GPB Field	70.30037	-148.93122	
V Pad	50-029-23568-00-00	V Pad - GPB Field	70.32732	-149.26781	
W Pad	50-029-21939-60-00	W Pad - GPB Field	70.29654	-149.09575	
Z Pad	50-029-21950-03-00	Z Pad - GPB Field	70.29812	-149.19765	

Mr. Chris Hladick
October 29, 2018
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If you have any questions concerning this submittal, please feel free to contact me at rachel.buckbee@bp.com or 907-564-4405.

Sincerely,



Rachel Buckbee
Air Compliance Advisor

Attachments: Certification Statement
Well Affected Facility Reports
Well Site Fugitive Emissions Monitoring Reports

cc: Compliance Technician, ADEC - Fairbanks

Annual Compliance Report
40 CFR 60 Subpart OOOOa

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Neil J. Loader
Responsible Company Official

10 / 29 / 2018
Date

Neil Loader
Printed Name

VP Operations Alaska
Title

BP Exploration (Alaska) Inc.
Company

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: S-1138L1
 Well Location: Latitude: 70.35604, Longitude: -149.03412 (NAD83)
 US Well Number: 50-029-23094-02-60
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 8/28/18 2:30
 Date and Time Flowback Ended (Separator Disconnected): 9/1/18 3:53

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
8/28/18 2:30	9/1/18 0:05	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

Section 3: Technical Infeasibility

Fill out all five of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

Table 3- Technically Infeasible to Route Gas to Flowline/Collection System		
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) for Infeasibility

Table 4- Technically Infeasible to Reinject Gas into a Well	
Reinjection Considered	Reason(s) for Infeasibility

Table 5- Technically Infeasible to Reuse Gas as Onsite Fuel Source	
Reuse Technologies Considered	Reason(s) for Infeasibility

Table 6- Technically Infeasible to Reuse Gas for Other Useful Purpose	
Reuse Technologies Considered	Reason(s) for Infeasibility

If it is technically infeasible to recover gas in any of the methods listed above, gas must be flared unless flaring can result in a fire hazard or explosion, or where high heat emissions can negatively impact tundra, permafrost, or waterways. Fill out the flaring table below. If it is technically infeasible to flare, enter the times and dates of operating under the exemption, and list the exemption.
Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	97.4 Hours
Duration of Recovery:	93.6 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: L-118L1
 Well Location: Latitude: 70.35060, Longitude: -149.32498 (NAD83)
 US Well Number: 50-029-23043-00-60
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 6/29/18 2:30
 Date and Time Flowback Ended (Startup of Production): 7/4/18 14:23

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
6/29/18 2:30	6/30/18 11:30	Routed to Flowline/Collection System
6/30/18 15:30	7/4/18 14:23	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

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Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	131.9 Hours
Duration of Recovery:	127.9 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:
Flowback was halted for several hours because the gathering center was down.

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: S-129
 Well Location: Latitude: 70.35360, Longitude: -149.03093 (NAD83)
 US Well Number: 50-029-23433-00-00
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 9/1/18 19:00
 Date and Time Flowback Ended (Separator Disconnected): 9/6/18 3:58

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
9/1/18 19:00	9/2/18 4:24	Routed to Flowline/Collection System
9/2/18 4:39	9/4/18 6:05	Routed to Flowline/Collection System
9/4/18 7:09	9/5/18 0:02	Routed to Flowline/Collection System
9/5/18 5:00	9/5/18 23:20	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

Section 3: Technical Infeasibility

Fill out all five of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

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Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	105.0 Hours
Duration of Recovery:	94.0 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:
The well was shut-in several times during flowback.

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: P1-20
 Well Location: Latitude: 70.39043, Longitude: -148.58628 (NAD83)
 US Well Number: 50-029-22288-00-00
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 5/7/18 16:25
 Date and Time Flowback Ended (Separator Disconnected): 5/11/18 23:18

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
5/7/18 16:25	5/11/18 13:13	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

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Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	102.9 Hours
Duration of Recovery:	92.8 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: L-205
 Well Location: Latitude: 70.34980, Longitude: -149.32818 (NAD83)
 US Well Number: 50-029-23388-01-00
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 5/7/18 15:00
 Date and Time Flowback Ended (Startup of Production): 5/11/18 21:14

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
5/7/18 15:00	5/11/18 21:14	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

Section 3: Technical Infeasibility

Fill out all five of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

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Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) for Infeasibility

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Reinjection Considered	Reason(s) for Infeasibility

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Reuse Technologies Considered	Reason(s) for Infeasibility

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If it is technically infeasible to recover gas in any of the methods listed above, gas must be flared unless flaring can result in a fire hazard or explosion, or where high heat emissions can negatively impact tundra, permafrost, or waterways. Fill out the flaring table below. If it is technically infeasible to flare, enter the times and dates of operating under the exemption, and list the exemption. Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	102.2 Hours
Duration of Recovery:	102.2 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: S-200A
 Well Location: Latitude: 70.35510, Longitude: -149.03724 (NAD83)
 US Well Number: 50-029-22846-01-00
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 4/15/18 1:12
 Date and Time Flowback Ended (Separator Disconnected): 4/18/18 19:59

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)
4/15/18 1:12	4/18/18 19:59	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

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Reuse Technologies Considered	Reason(s) for Infeasibility

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Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	90.8 Hours
Duration of Recovery:	90.8 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:

Hydraulic Fracturing/Refracturing Recordkeeping Form

Section 1: Well Identification

Well Name: P1-23
 Well Location: Latitude: 70.39065, Longitude: -148.58357 (NAD83)
 US Well Number: 50-029-22690-00-00
 Wildcat/Delineation Well¹ (Yes or No): No
¹If yes, complete Section 1, Table 7, and Section 4 only.
 Date and Time Flowback First Began: 1/15/18 15:58
 Date and Time Flowback Ended (Separator Disconnected): 1/17/18 15:30

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (Choose from dropdown)
1/15/18 15:58	1/17/18 9:35	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

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Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	47.5 Hours
Duration of Recovery:	41.6 Hours
Duration of Combustion (Flaring):	0.0 Hours
Duration of Venting:	0.0 Hours

Comments:

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 2

Latitude (NAD83): 70.27115

Longitude (NAD83): -148.48667

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/12/2017	10:06:00 AM	11:30:00 AM	41	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	One item on delay of repair was not repaired during the next planned well shutdown.	
1/2/2018	7:28:00 AM	8:37:00 AM	61	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/21/2018	7:23:00 AM	2:47:00 PM	-14	Clear	5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/22/2018	7:16:00 AM	1:42:00 PM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Outside piping and well houses Manifold building

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	8/19/2017 4/21/2018 4/23/2018 6/20/2018	Handheld OGI	4	-	Requires a well shutdown or well shut-in	1	-
9/12/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
1/2/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
4/21/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
4/22/2018	Valve	1	4/21/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 3

Latitude (NAD83): 70.22883

Longitude (NAD83): -148.28499

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/9/2017	7:43:00 AM	12:07:00 PM	52	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of six items occurred more than 30 days after the date of leak discovery, the resurvey of three items occurred more than 30 days after the repair, repair dates of three items were not recorded, and the date of additional repair for one item was not recorded.	Outside piping
9/16/2017	1:09:00 PM	3:45:00 PM	35	Fog	7	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
11/8/2017	8:07:00 AM	2:02:00 PM	32	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Outside piping and wells
11/9/2017	10:22:00 AM	12:27:00 PM	23.9	Overcast	1.1	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Module 4912 and 4913 enhanced oil recovery
1/2/2018	7:35:00 AM	3:10:00 PM	65.4	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Module 4901
3/13/2018	7:57:00 AM	9:35:00 AM	71	Partly Cloudy	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
6/18/2018	10:30:00 AM	11:30:00 AM	64	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		Start up support

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	Unknown 8/4/2017 4/10/2018	Handheld OGI	3	-	Requires a well shutdown or well shut-in.	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	Unknown	Handheld OGI	1	-	Requires a well shutdown or well shut-in.	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/9/2017	Valve	-	Unknown 4/12/2018 4/27/2018 4/29/2018 6/28/2018 7/13/2018 7/27/2018	Handheld OGI Bubble Check	15	4	Requires a well shutdown or well shut-in or would be unsafe to repair during the operation of the unit	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	4/27/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/9/2017	Valve	2	9/1/2017 9/5/2017	Handheld OGI	1	-	Would be unsafe to repair during the operation of the unit	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/16/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/8/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
11/9/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	4	4/12/2018	Handheld OGI	4	3	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	12/9/2017	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
1/2/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	7/5/2018	Bubble Check	2	1	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	4	1/2/2018 2/6/2018 4/10/2018	Handheld OGI	-	-	-	3	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
1/2/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	6	1/2/2018 2/2/2018 4/10/2018 4/12/2018	Handheld OGI	2	1	Requires a well shutdown or well shut-in	3	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/13/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 4

Latitude (NAD83): 70.27359

Longitude (NAD83): -148.27941

Table 1. Monitoring Survey Details ¹

Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/11/2017	7:43:00 AM	10:20:00 AM	51	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of five items occurred more than 30 days after the date of leak discovery and the resurvey of one item occurred more than 30 days after the repair.	Outside piping
8/11/2017	7:43:00 AM	10:20:00 AM	51	Overcast	9	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		Outside piping
9/15/2017	10:33:00 AM	12:10:00 PM	47	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
11/28/2017	8:47:00 AM	9:55:00 AM	2	Overcast	9	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		
3/15/2018	12:00:00 AM	12:30:00 PM	65	Partly Cloudy	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Inside well houses only
3/16/2018	8:00:00 AM	10:00:00 AM	-6	Clear	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Outside piping
3/28/2018	9:49:00 AM	10:47:00 AM	-13	Clear	6	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-321	74900237		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	3/15/2018	Handheld OGI	1	-	Repair or replacement is technically infeasible	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
8/11/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	3/15/2018	Handheld OGI	3	2	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
9/15/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
11/28/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
3/15/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	7	3/28/2018 3/31/2018 4/7/2018 4/16/2018	Handheld OGI	-	-	-	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	2	3/29/2018 4/1/2018	Handheld OGI	-	-	-	-	-
	Meter	2	4/16/2018	Handheld OGI	-	-	-	2	-
	Open-Ended Line	-	-	-	-	-	-	-	-
3/16/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	4	3/29/2018 3/31/2018 4/4/2018 4/29/2018	Handheld OGI	-	-	-	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	4/16/2018	Handheld OGI	-	-	-	1	-
3/28/2018	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
3/28/2018	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site 6

Latitude (NAD83): 70.24341

Longitude (NAD83): -148.50169

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/14/2017	1:15:00 PM	2:30:00 PM	35	Clear	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The repair of three items occurred more than 30 days after the date of leak discovery, the resurvey of four items occurred more than 30 days after the repair, the repair method for one item was not recorded, and seven monitoring survey details for one monitoring survey were not recorded.	
11/21/2017	10:39:00 AM	10:41:00 AM	56	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		Inside manifold only
12/29/2017	7:45:00 AM	10:45:00 AM	18	Overcast	3	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and well houses
3/8/2018	11:15:00 AM	12:15:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
6/24/2018	Unknown	Unknown	Unknown	Unknown	Unknown	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		Start up support

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	2	2	Requires a well shutdown or well shut-in	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	1/16/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
9/14/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/21/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	2	11/29/2017 1/16/2018	Handheld OGI	-	-	-	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	1/16/2018	Handheld OGI	-	-	-	2	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
12/29/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
3/8/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
6/24/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	7/7/2018	Bubble Check	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 7 Latitude (NAD83): 70.26849 Longitude (NAD83): -148.57401

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/14/2017	12:10:00 PM	12:50:00 PM	35	Clear	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	A monitoring survey daily verification video and well site photo were not recorded for one survey.	Full pad scan
11/11/2017	8:45:00 AM	3:50:00 PM	8	Overcast	10.4 to 18	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
3/9/2018	7:43:00 AM	8:37:00 AM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	11/9/2017	Handheld OGI	2	1	Requires a well shutdown or well shut-in	-	-
9/14/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/11/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	11/19/2017	Handheld OGI	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/9/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site 9

Latitude (NAD83): 70.24255

Longitude (NAD83): -148.24423

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/10/2017	7:30:00 AM	1:05:00 PM	43	Overcast	5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of ten items occurred more than 30 days after the date of leak discovery, the resurvey of one item occurred more than 30 days after the repair, and the date of additional repair attempts was not recorded for one item.	Outside piping around pad
9/16/2017	8:45:00 AM	2:01:00 PM	37	Overcast	8	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		High severity walkthrough and rechecks
10/31/2017	7:52:00 AM	8:02:00 AM	26	Overcast	6	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		Scan of flange
12/31/2017	9:03:00 AM	10:42:00 AM	74	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Inside modules only Inside modules only Inside modules only
3/23/2018	1:55:00 PM	4:01:00 PM	71	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-321	74900236		
3/24/2018	8:35:00 AM	12:30:00 PM	63	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-322	74900236		
3/25/2018	8:30:00 AM	3:42:00 PM	64	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-323	74900237		Well houses Outdoor piping and rescans
4/13/2018	7:35:00 AM	2:45:00 PM	9	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		
4/14/2018	7:15:00 AM	2:00:00 PM	-12	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		
4/27/2018	10:25:00 AM	4:45:00 PM	76	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Start up support
6/18/2019	8:45:00 AM	10:20:00 AM	65	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		
6/26/2018	3:50:00 PM	4:58:00 PM	72	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/22/2018	2:31:00 PM	3:49:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	11/15/2017 2/20/2018 2/26/2018 4/14/2018 4/23/2018 5/2/2018 5/7/2018 6/22/2018 6/30/2018	Handheld OGI Bubble Check	15	-	Requires a well shutdown or well shut-in or would be unsafe to repair during the operation of the unit	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	2/20/2018 2/26/2018	Handheld OGI	4	-	Requires a well shutdown or well shut-in or would be unsafe to repair during the operation of the unit	-	-
	Meter	-	11/25/2017 2/20/2018 2/26/2018 4/23/2018 6/15/2018	Handheld OGI	6	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	2/18/2018 2/20/2018 2/26/2018 3/20/2018 3/24/2018 3/25/2018 4/8/2018 4/13/2018 4/14/2018 4/26/2018 4/27/2018 5/25/2018 6/17/2018 6/22/2018 7/24/2018	Handheld OGI Bubble Check	30	2	Requires a well shutdown or well shut-in	-	-
8/10/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	8/10/2017	-	1	1	Requires a well shutdown or well shut-in	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/16/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	9/16/2017	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
10/31/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
12/31/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
3/23/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	4	6/22/2018	Handheld OGI	-	-	-	4	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	4/23/2018 6/22/2018	Handheld OGI	-	-	-	1	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
3/24/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	3	4/14/2018 4/23/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	4/14/2018	Handheld OGI	-	-	-	-	-
	Meter	1	4/8/2018	Handheld OGI	-	-	-	-	-
3/24/2018	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	5	3/31/2018 4/8/2018 5/25/2018 6/14/2018	Handheld OGI	-	-	-	3	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/25/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	6	4/8/2018 4/14/2018 4/23/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	3	4/14/2018	Handheld OGI	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/13/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	3	4/19/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
4/14/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	4	4/19/2018 5/15/2018	Handheld OGI	-	-	-	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
4/27/2018	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	6/20/2018	Bubble Check	1	1	Requires a well shutdown or well shut-in	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
6/18/2019	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	6/22/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
6/18/2019	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/18/2019	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
6/18/2019	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/22/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	-	-	3	3	Requires a well shutdown or well shut-in	-	-
6/26/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 11

Latitude (NAD83): 70.27409

Longitude (NAD83): -148.32713

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/11/2017	1:49:00 PM	3:43:00 PM	40	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of three items occurred more than 30 days after the date of leak discovery, and the resurvey of one item occurred more than 30 days after the repair.	Outside Piping
9/15/2017	1:30:00 PM	3:00:00 PM	47	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
11/22/2017	11:30:00 AM	2:30:00 PM	7	Partly Cloudy	2	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GF-320	44400882		Full site inspected
11/27/2017	8:47:00 AM	10:33:00 AM	-9	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		
3/13/2018	9:56:00 AM	11:57:00 AM	72	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	4/25/2018	Handheld OGI	1	-	Would be unsafe to repair during the operation of the unit	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	4/19/2018 11/22/2108	Handheld OGI	2	-	Requires a well shutdown or well shut-in	-	-
	Meter	-	12/14/2017 4/19/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/11/2017	Valve	-	6/5/2018	Bubble Check	3	2	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/15/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
11/22/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	2	4/28/2018	Handheld OGI	2	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/27/2017	Valve	2	4/28/2018 1/6/2018	Handheld OGI	-	-	-	2	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
3/13/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 14

Latitude (NAD83): 70.23824

Longitude (NAD83): -148.59402

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/12/2017	7:52:00 AM	9:49:00 AM	39	Overcast	3	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	None
1/1/2018	8:15:00 AM	9:45:00 AM	75	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
4/3/2018	7:27:00 AM	4:05:00 PM	3	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
4/4/2018	7:48:00 AM	12:40:00 PM	50	Overcast	9	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900237	
4/5/2018	7:25:00 AM	12:08:00 PM	80	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900237	
4/23/2018	7:46:00 AM	2:39:00 PM	67	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
4/24/2018	7:59:00 AM	1:12:00 PM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
											Wells and piping Wells and piping Modules Inside modules

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	4/24/2018 5/12/2018 6/10/2018 6/11/2018	Handheld OGI	9	2	Requires a well shutdown or well shut-in or unsafe to repair during the operation of the unit	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	3/30/2018 3/31/2018	Handheld OGI	2	-	Requires a well shutdown or well shut-in	-	-
	Instrument	-	6/10/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Meter	-	4/15/2018	Handheld OGI	9	7	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/12/2017	Valve	-	3/6/2018 4/15/2018	Handheld OGI	36	27	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	9/12/2017	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
1/1/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair		Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018			
4/3/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	1	4/3/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/4/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	4/4/2018 4/15/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in and would be unsafe to conduct during the operation of the unit	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
4/5/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	4	-	-	4	4	Requires a well shutdown or well shut-in or would be unsafe to conduct during the operation of the unit	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
4/23/2018	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in and would be unsafe to conduct during the operation of the unit	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	6/12/2018	Handheld OGI	2	1	Requires a well shutdown or well shut-in or would be unsafe to conduct during the operation of the unit	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	5	4/23/2018 5/13/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
4/23/2018	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	-	-	2	2	Requires a well shutdown or well shut-in or would be unsafe to conduct during the operation of the unit	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
4/24/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	2	4/24/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site 15

Latitude (NAD83): 70.29845

Longitude (NAD83): -148.57740

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/26/2017	3:36:00 AM	3:03:00 PM	47	Overcast	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The resurvey of one item occurred more than 30 days after the repair.	Start up support
9/14/2017	9:50:00 AM	11:25:00 AM	35	Clear	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
11/14/2017	8:45:00 AM	3:00:00 PM	11	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Full pad scan
3/8/2018	8:02:00 AM	8:57:00 AM	69	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
8/26/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/14/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	8/28/2017	Handheld OGI	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
11/14/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	5/20/2018	Handheld OGI	2	1	Requires a well shutdown or well shut-in or would be unsafe to repair during the operation of the unit	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/8/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 16

Latitude (NAD83): 70.21008

Longitude (NAD83): -148.22919

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/8/2017	10:56:00 AM	1:43:00 PM	52	Overcast	4	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The resurvey of two items occurred more than 30 days after the repair.	Outside piping
9/15/2017	8:45:00 AM	10:12:00 AM	47	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
12/31/2017	7:40:00 AM	8:35:00 AM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
3/18/2018	9:00:00 AM	4:35:00 PM	70	Partly Cloudy	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		
3/19/2018	10:14:00 AM	4:00:00 PM	-6	Partly Cloudy	6	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		Inside modules only

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	3/18/2018 4/29/2018 6/2/2018	Handheld OGI Bubble Check	8	-	Requires a well shutdown or well shut-in or would be unsafe to repair during the operation of the unit	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	3/18/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Meter	-	1/23/2018 2/9/2018 3/30/2018	Handheld OGI	4	-	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/8/2017	Valve	-	1/23/2018 2/18/2018 7/3/2018 7/28/2018	Handheld OGI Bubble Check	6	2	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/8/2017	Valve	1	-	-	1	1	Would be unsafe to repair during the operation of the unit	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/15/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
12/31/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
3/18/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	3/30/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	3/30/2018	Handheld OGI	-	-	-	-	-
3/19/2018	Meter	4	3/18/2018 3/30/2018	Handheld OGI	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	6	3/18/2018 3/19/2018 3/20/2018 3/30/2018 7/8/2018 7/28/2018	Handheld OGI Bubble Check	2	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
3/19/2018	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 17

Latitude (NAD83): 70.2 085

Longitude (NAD83): -148.31556

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
4/29/2018	12:33:00 PM	3:53:00 PM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	The repair of one item occurred more than 30 days after the date of leak discovery and the resurvey of one item occurred more than 30 days after the repair.	Inside module
5/1/2018	11:33:00 AM	4:19:00 PM	44	Fog	5	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Inside module, well houses and outside piping
5/2/2018	12:35:00 PM	5:12:00 AM	22	Partly Cloudy	4	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/19/2018	11:24:00 AM	12:30:00 PM	60	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		Start up support
6/26/2018	9:37:00 AM	10:10:00 AM	67	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
4/29/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	3	4/29/2018 5/2/2018 7/21/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	5/2/2018	Handheld OGI	-	-	-	-	-
	Meter	3	5/2/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
5/1/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	9	4/29/2018 5/2/2018 7/24/2018 7/28/2018	Handheld OGI Bubble Check	3	1	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	3	5/2/2018 7/28/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	10	5/2/2018 6/9/2018	Handheld OGI Bubble Check	5	5	Requires a well shutdown or well shut-in	1	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
5/2/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/19/2018	Valve	1	5/2/2018	Handheld OGI	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
6/26/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site 18

Latitude (NAD83): 70.29637

Longitude (NAD83): -148.44638

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/13/2017	7:41:00 AM	9:12:00 AM	47	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	None
11/10/2017	9:30:00 AM	3:30:00 PM	18	Overcast	8	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	
3/10/2018	7:18:00 AM	7:55:00 AM	68	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/13/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
11/10/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	10/2/2017	Handheld OGI	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
3/10/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	6/20/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
3/10/2018	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site L1

Latitude (NAD83): 70.33589

Longitude (NAD83): -148.47279

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/11/2017	8:00:00 AM	10:33:00 AM	42	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of one item occurred more than 30 days after the repair.	Inside modules and well houses
10/23/2017	7:53:00 AM	10:00:00 AM	57	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401573		
3/19/2018	7:45:00 AM	8:25:00 AM	62	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/11/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
Valve	1	9/11/2017	-	-	-	-	-	-	
10/23/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	1	11/8/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in and a vent blowdown	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
Valve	-	-	-	-	-	-	-	-	
3/19/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site L2

Latitude (NAD83): 70.30435

Longitude (NAD83): -148.43976

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/11/2017	10:50:00 AM	11:42:00 AM	42	Partly Cloudy	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair and resurvey of one item occurred more than 30 days after the date of leak discovery and more than 30 days after the repair respectively.
9/13/2017	12:45:00 PM	2:05:00 PM	60	Partly Cloudy	3	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	
10/26/2017	8:14:00 AM	10:20:00 AM	58	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	
11/25/2017	8:04:00 AM	8:49:00 AM	5	Overcast	5	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	
3/19/2018	8:40:00 AM	9:20:00 AM	68	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	
											Artificial lift startup scan
											Inside of modules and well houses completed, outdoor piping
											Outdoor piping completed

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	1	1	Would require a vent blowdown	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/11/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
9/13/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
9/13/2017	Meter	1	12/3/2017	Handheld OGI	-	-	-	1	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
10/26/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	2	10/26/2017	-	1	1	Would require a vent blowdown	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/25/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
3/19/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site L3

Latitude (NAD83): 70.29740

Longitude (NAD83): -148.31885

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
10/20/2017	8:15:00 AM	12:00:00 PM	5	Overcast	10	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	None
12/26/2017	7:17:00 AM	8:35:00 AM	66	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	
3/6/2018	12:40:00 PM	2:00:00 PM	64	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900237	

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
10/20/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	-	-	1	1	Would require a vent blowdown	-	-
	Meter	3	-	-	3	3	Requires a well shutdown or well shut-in or would require a vent blowdown	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
12/26/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
3/6/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
3/6/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
3/6/2018	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site L5

Latitude (NAD83): 70.33351

Longitude (NAD83): -148.23889

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/10/2017	9:53:00 AM	10:50:00 AM	38	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair of one item occurred more than 30 days after the date of leak discovery.
11/4/2017	7:40:00 AM	4:45:00 PM	36	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	
3/19/2018	10:25:00 AM	11:05:00 AM	64	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	
6/23/2018	8:25:00 AM	8:40:00 AM	42	Partly Cloudy	1.2	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficulty/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	10/22/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/10/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	9/10/2017	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
11/4/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	2	11/4/2017	-	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Meter	3	3/28/2018 5/15/2018	Handheld OGI	3	-	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	6/8/2018	Handheld OGI	2	1	Requires a well shutdown or well shut-in	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/19/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/23/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: Drill Site Niakuk

Latitude (NAD83): 70.34723

Longitude (NAD83): -148.20311

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/10/2017	9:16:00 AM	9:43:00 AM	38	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of two items occurred more than 30 days after the repair.
11/6/2017	8:20:00 AM	2:25:00 PM	19	Partly Cloudy	3	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	
3/20/2018	9:50:00 AM	10:20:00 AM	64	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	9/21/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/10/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
11/6/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	2	-	-	2	2	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	1	4/12/2018	Handheld OGI	1	-	Would require a vent blowdown	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	4	11/6/2017	-	1	1	Requires a well shutdown or well shut-in	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/20/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Drill Site PM1

Latitude (NAD83): 70.39065

Longitude (NAD83): -148.58447

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
12/21/2017	8:15:00 AM	10:40:00 AM	74	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	One item on delay of repair was not repaired during the next planned well shutdown.	Inside modules only, too windy for wells and piping
1/20/2018	8:38:00 AM	9:25:00 AM	-23	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44402468		Well houses only, too windy for piping
1/26/2018	3:10:00 PM	3:55:00 PM	5	Overcast	1	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping only
3/6/2018	10:20:00 AM	11:20:00 AM	65	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900237		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
12/21/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	12/21/2017	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
1/20/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
1/26/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
1/26/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
1/26/2018	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	1	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/6/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: A Pad

Latitude (NAD83): 70.26520

Longitude (NAD83): -148.76039

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/17/2017	9:15:00 AM	11:05:00 AM	35	Overcast	12	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The repair of eight items occurred more than 30 days after the date of leak discovery, the attempted date of repair for three items, repair date of two items and repair notes for five items were not recorded, and seven items on delay of repair were not repaired during the next planned well shutdown.	
3/13/2018	7:57:00 AM	9:35:00 AM	71	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
3/15/2018	8:20:00 AM	10:00:00 AM	57	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		
5/28/2018	7:27:00 AM	12:16:00 PM	21	Overcast	10	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
5/29/2018	7:41:00 AM	1:48:00 PM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Inside skids
5/30/2018	8:01:00 AM	10:23:00 AM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Inside skids

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	Unknown 8/18/2017 8/21/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in	4	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	5/30/2018	Handheld OGI	-	-	-	1	-
	Meter	-	5/29/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/17/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	Unknown 8/12/2017 8/20/2017	Handheld OGI	5	5	Requires a well shutdown or well shut-in	9	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair		Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018			
3/13/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
3/15/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
5/28/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
5/29/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	2	-	-	2	2	Requires a well shutdown or well shut-in	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	10	-	-	10	10	Requires a well shutdown or well shut-in	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
5/30/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: 8 Pad

Latitude (NAD83): 70 2 @89

Longitude (NAD83): -148.67644

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/8/2017	7:39:00 AM	9:52:00 AM	51	Overcast	2	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery, the resurvey of five items occurred more than 30 days after the repair, the repair date of one item was not recorded, seven items on delay of repair were not repaired during the next planned well shutdown, and one item on delay of repair was not repaired during two planned well shutdowns.	Outside piping
9/17/2017	11:15:00 AM	12:45:00 PM	38	Overcast	10	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
11/10/2017	9:00:00 AM	5:10:00 PM	16	Overcast	9	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573		Full pad scan

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	Unknown	-	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	5/31/2018	Handheld OGI	5	1	Requires a well shutdown or well shut-in	5	-
8/8/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/17/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/10/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	1	2/11/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	4	2/15/2018 5/31/2018	Handheld OGI	3	2	Requires a well shutdown or well shut-in	3	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: C Pad

Latitude (NAD83): 70.29554

Longitude (NAD83): -148.67093

Survey						Table 1. Monitoring Survey Details ¹					Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Technician	Training & Experience (Years)	Monitoring Instrument	Type	Make/Model	Serial Number	
8/6/2017	7:52:00 AM	10:27:00 AM	45	Overcast	6	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery.	Outside piping
10/16/2017	9:15:00 AM	4:35:00 PM	30	Overcast	10	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573		This was a second round full pad scan. The wind picked up later in the morning to gusting to 20 mph. The inspection on the outside portions were only conducted during wind speed of 10 mph or below.
3/12/2018	8:45:00 AM	9:30:00 AM	65	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay Field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
8/6/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	2/12/2018	Handheld OGI	-	-	-	1	-
10/16/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
3/12/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: D Pad

Latitude (NAD83): 70.29578

Longitude (NAD83): -148.76040

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/5/2017	10:57:00 AM	1:22:00 PM	66	Clear	4	8. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery.	Outside piping
11/18/2017	9:07:00 AM	11:55:00 AM	18	Overcast	8	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Full pad scan
3/17/2018	1:30:00 PM	3:00:00 PM	67	Clear	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
8/5/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/18/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
3/17/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	12/2/2017 4/1/2018 4/3/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: E Pad

Latitude (NAD83): 70.33861

Longitude (NAD83): -148.67143

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/5/2017	7:42:00 AM	9:58:00 AM	53	Clear	6	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery and the resurvey of one item occurred more than 30 days after the repair.	Outside piping
11/6/2017	8:04:00 AM	3:54:00 PM	11	Partly Cloudy	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Full pad scan day 1
11/7/2017	8:13:00 AM	10:08:00 AM	28	Overcast	1	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Full pad scan day 2

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	11/7/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
8/5/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
11/6/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	4/6/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
11/6/2017	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	4/6/2018 5/7/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
11/7/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	1	4/6/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: F Pad

Latitude (NAD83): 70.33773

Longitude (NAD83): -148.77005

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/4/2017	8:10:00 AM	10:02:00 AM	48	Overcast	3	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery and the resurvey of one item occurred more than 30 days after the repair.	
9/28/2017	8:25:00 AM	10:30:00 AM	30	Partly Cloudy	2	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
11/17/2017	9:07:00 AM	3:00:00 PM	11	Overcast	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Skids and well houses
11/29/2017	1:47:00 PM	2:17:00 AM	75	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44400882		Call out
3/17/2018	8:53:00 AM	11:00:00 AM	64	Clear	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
8/4/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
9/28/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	9/28/2017	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
11/17/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	11/4/2017 3/27/2018	Handheld OGI	-	-	-	1	-
11/29/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	12/7/2017	Handheld OGI	-	-	-	-	-
3/17/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: G Pad

Latitude (NAD83): 70.32197

Longitude (NAD83): -148.72315

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/4/2017	8:12:00 PM	12:57:00 PM	50	Overcast	3	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	None	
9/28/2017	10:40:00 AM	12:45:00 PM	45	Overcast	2	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
1/2/2018	10:57:00 AM	12:20:00 PM	63	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/7/2018	8:24:00 AM	1:40:00 PM	3	Overcast	2	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	Unknown	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
8/4/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
9/28/2017	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
1/2/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
4/7/2018	Valve	1	1/2/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: H Pad

Latitude (NAD83): 70.29891

Longitude (NAD83): -148.84628

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/9/2017	9:26:00 AM	10:35:00 AM	45	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	Monitoring survey times, technician, monitoring instrument details, daily verification video, and a well site photo were not recorded for one monitoring survey, and four items on delay of repair were not repaired during the next planned well shutdown.	
9/16/2017	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown		
11/12/2017	9:45:00 AM	4:00:00 PM	22	Snow	18	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Scanned full pad, well houses and skids. Waited for lower wind speeds to do outside piping.
11/13/2017	8:30:00 AM	3:00:00 AM	62	Overcast	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Skids 59 & 54
4/19/2018	9:06:00 AM	10:48:00 AM	82	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		
4/21/2018	3:32:00 PM	3:38:00 PM	58	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
4/22/2018	10:25:00 AM	11:50:00 AM	68	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/26/2018	9:40:00 AM	10:00:00 AM	63	Fog	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor		-	-	-	-	-	-	-
	Connector		-	-	-	-	-	-	
	Covers and Closed Vent Systems		-	-	-	-	-	-	
	Flange		6/24/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Instrument		-	-	-	-	-	-	-
	Meter		-	-	-	-	-	-	-
	Open-Ended Line		-	-	-	-	-	-	-
	Other		-	-	-	-	-	-	-
	Pressure Relief Device		-	-	-	-	-	-	-
Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-	
Valve	5/26/2018 6/24/2018	Handheld OGI	3	-	Requires a well shutdown or well shut-in	3	-		
9/9/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-	
Valve	-	-	-	-	-	-	-	-	
9/16/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
Valve	1	3/17/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-	

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
11/12/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
11/13/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/19/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
4/21/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	4/21/2018	Handheld OGI	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
4/22/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	6/24/2018	Handheld OGI	1	-	Requires a well shutdown or well shut in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/26/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: J Pad

Latitude (NAD83): 70.32636

Longitude (NAD83): -148.84251

Survey						Table 1. Monitoring Survey Details ¹					Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Technician	Training & Experience (Years)	Monitoring Instrument	Type	Make/Model	Serial Number	
9/19/2017	8:45:00 AM	12:32:00 PM	35	Rain	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	None	Outside piping and wells
9/20/2017	2:00:00 PM	3:53:00 PM	73	Overcast	73	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Inside Skids
1/4/2018	7:43:00 AM	9:06:00 AM	11	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
6/4/2018	12:00:00 AM	1:00:00 PM	31	Overcast	8	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/19/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/20/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	5/12/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
1/4/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	9/20/2017 7/20/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/4/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: K Pad

Latitude (NAD83): 70.33874

Longitude (NAD83): -148.61242

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/3/2017	8:05:00 AM	10:15:00 AM	50	Overcast	5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	Monitoring survey times, weather conditions, instrument details, daily verification video, and a well site photo were not recorded for one monitoring survey.	
9/29/2017	8:29:00 AM	10:00:00 AM	33	Overcast	11	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		
2/9/2018	Unknown	Unknown	Unknown	Unknown	Unknown	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	Unknown	Unknown		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
8/3/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/29/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
2/9/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: L Pad Latitude (NAD83): 70.35026 Longitude (NAD83): -149.32881

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/9/2017	11:42:00 AM	1:50:00 PM	40	Overcast	2	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	The resurvey of 13 items occurred more than 30 days after the repair, and 24 items on delay of repair were not repaired during the next planned well shutdown.	
9/18/2017	11:25:00 AM	1:15:00 PM	38	Overcast	2	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		
10/30/2017	1:58:00 PM	3:00:00 PM	37	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		
1/5/2018	9:31:00 AM	10:10:00 AM	7	Overcast	5	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
6/2/2018	10:00:00 AM	1:20:00 PM	30	Overcast	1	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Well houses
6/2/2018	9:58:00 AM	1:35:00 PM	30	Overcast	3	F. Woldstad	IR Lvl 1/OGI (4)	Handheld OGI	FLIR GFX-320	74900236		Well houses
6/24/2018	1:17:00 PM	3:47:00 PM	57	Partly Cloudy	1.5	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/23/2018	10:03:00 AM	4:43:00 PM	50	Partly Cloudy	2.5	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	9/26/2018 12/18/2017 5/12/2018 5/23/2018	Handheld OGI	10	-	Requires a well shutdown or well shut-in	10	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	5/12/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/9/2017	Valve	-	8/4/2017 8/21/2017 8/23/2017 3/19/2018 5/12/2018 5/16/2018 5/21/2018 7/24/2018	Handheld OGI Bubble Check	21	-	Requires a well shutdown or well shut-in	13	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/9/2017	Valve	1	5/12/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
9/18/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
10/30/2017	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
1/5/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
6/2/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	8	6/9/2018 6/14/2018 6/17/2018 6/18/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	6/17/2018	Handheld OGI	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair		Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018			
6/23/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	3	6/25/2018 7/22/2018 7/24/2018	Bubble Check	2	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/24/2018	Valve	6	6/23/2018 6/24/2018 7/11/2018 7/13/2018	Handheld OGI Bubble Check	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	3	7/23/2018 7/24/2018	Bubble Check	3	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: M Pad

Latitude (NAD83): 70.3360

Longitude (NAD83): -148.96276

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
8/17/2017	11:00:00 AM	3:35:00 PM	73	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44400882	The resurvey of 16 items occurred more than 30 days after the repair, dates of attempted repair, repair notes, and repair dates for three items were not recorded, two items on delay of repair were not repaired during two planned well shutdowns, and nine items on delay of repair were not repaired during the next planned well shutdown.	Requested scan of skid 59
9/7/2017	9:18:00 AM	12:20:00 PM	41	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
1/2/2018	8:28:00 AM	9:42:00 AM	68	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/20/2018	10:30:00 AM	4:28:00 PM	2	Clear	3	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and wells
4/21/2018	10:10:00 AM	4:30:00 PM	70	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		
5/12/2018	1:40:00 PM	3:00:00 PM	33	Overcast	7	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		
5/20/2018	10:10:00 AM	4:10:00 PM	67	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor		-	-	-	-	-	-	-
	Connector		8/29/2017 4/21/2018	Handheld OGI	2	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems		-	-	-	-	-	-	-
	Flange		-	-	-	-	-	-	-
	Instrument		-	-	-	-	-	-	-
	Meter		-	-	-	-	-	-	-
	Open-Ended Line		-	-	-	-	-	-	-
	Other		-	-	-	-	-	-	-
	Pressure Relief Device		-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	-
	Valve		8/22/107 8/26/2017 8/28/2017 8/30/2017 7/21/2018	Handheld OGI Bubble Check	10	-	Requires a well shutdown or well shut-in	1	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair		Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018			
8/17/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	1	Unknown	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	4	8/22/2017 8/26/2017 8/27/2017	Handheld OGI	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/7/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	6	Unknown 8/28/2017 8/31/2017 7/21/2018	Handheld OGI Bubble Check	4	-	Requires a well shutdown or well shut-in	3	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	9/7/2017	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
1/2/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
4/20/2018	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	5	4/20/2018 4/21/2018 4/25/2018 5/12/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
4/20/2018	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	4/20/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: N Pad

Latitude (NAD83): 70.32021

Longitude (NAD83): -148.91336

Table 1. Monitoring Survey Details ¹											
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number	
9/8/2017	9:50:00 AM	11:02:00 AM	37	Overcast	8	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	12 items on delay of repair were not repaired during the next planned well shutdown.
1/3/2018	9:59:00 AM	11:11:00 AM	71	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
2/11/2018	3:00:00 PM	11:30:00 AM	14	Clear	6	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	
4/21/2018	1:05:00 PM	3:25:00 PM	59	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	
4/25/2018	2:47:00 PM	4:45:00 PM	68	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	4/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/8/2017	Valve	-	3/30/2018 4/21/2108 5/25/2018	Handheld OGI	10	-	Requires a well shutdown or well shut-in	10	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
1/3/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
2/11/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	1	5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/21/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	2/13/2018 2/15/2018 5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
4/25/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	4/25/2018 5/25/2018	Handheld OGI	2	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: R Pad Latitude (NAD83): 70.34554 Longitude (NAD83): -148.90426

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/8/2017	11:33:00 AM	1:15:00 PM	49	Overcast	9	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of 11 items occurred more than 30 days after the repair, one item on delay of repair was not repaired during the next planned well shutdown, and 15 items on delay of repair were not repaired during two planned well shutdowns.	
1/4/2018	7:55:00 AM	11:10:00 AM	68	Overcast	2	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
1/26/2018	2:10:00 PM	2:40:00 PM	70	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		OGI supports scanning inside skid 86 only
3/29/2018	7:58:00 AM	1:36:00 PM	-7	Clear	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		Outside piping and well houses
3/30/2018	7:41:00 AM	1:13:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor		-	-	-	-	-	-	-
	Connector		9/20/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems		-	-	-	-	-	-	-
	Flange		-	-	-	-	-	-	-
	Instrument		8/17/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Meter		8/29/2017 5/26/2018	Handheld OGI	5	-	Requires a well shutdown or well shut-in	2	-
	Open-Ended Line		-	-	-	-	-	-	-
	Other		-	-	-	-	-	-	-
	Pressure Relief Device		-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	-
	Valve		8/28/2017 9/15/2017 11/23/2017 1/24/2018 5/4/2018 5/26/2018 6/20/2018 7/24/2018 7/26/2018	Handheld OGI Bubble Check	16	3	Requires a well shutdown or well shut-in	12	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair		Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018			
9/8/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
1/4/2018	Valve	1	10/11/2017	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	2	5/26/2018	Handheld OGI	2	-	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
1/26/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	1/24/2018 7/25/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
3/29/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	3/31/2018 5/14/2018	Handheld OGI	2	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	3	3/29/2018 3/31/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
3/29/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	3/31/2018	Handheld OGI	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
3/30/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	2	3/30/2018 5/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	7/24/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	7/25/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: 5 Pad Latitude (NAD83): 70.35495 Longitude (NAD83): -149.03728

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/23/2017	9:28:00 AM	10:45:00 AM	36	Overcast	8	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	The resurvey of two items occurred more than 30 days after the repair, and 22 items on the delay of repair list were not repaired during the next planned well shutdown.	
5/4/2018	9:05:00 AM	9:12:00 AM	7	Overcast	7	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		Inside
5/23/2018	9:21:00 AM	4:40:00 PM	34	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Inside
6/8/2018	9:15:00 AM	4:15:00 PM	29.8	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Inside
6/9/2018	8:30:00 AM	10:30:00 AM	30	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Inside
6/10/2018	8:30:00 AM	3:30:00 PM	62.1	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237		Inside
6/10/2018	11:15:00 AM	3:38:00 PM	68	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		Inside
6/25/2018	9:12:00 AM	3:13:00 PM	53	Partly Cloudy	3.6	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	8/12/2017 8/15/2017 3/7/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	8/2/2017 5/27/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	5/4/2018 6/11/2018	Handheld OGI	3	1	Requires a well shutdown or well shut-in	3	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/23/2017	Valve	-	5/26/2018 6/11/2018	Handheld OGI	17	15	Requires a well shutdown or well shut-in	17	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	9/23/2017	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
4/21/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	4	5/8/2018 5/12/2018 7/16/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
5/12/2018	Valve	5	4/22/2018 7/16/2018 7/18/2018	Handheld OGI Bubble Check	3	-	Requires a well shutdown or well shut-in	3	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
5/20/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	7/16/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	1	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	5/20/2018	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
5/20/2018	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	5/20/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
5/4/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
5/23/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	5/23/2018	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
6/8/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	6	6/9/2018	Handheld OGI	2	2	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Instrument	2	6/9/2018	Handheld OGI	-	-	-	-	-
	Meter	2	-	-	2	2	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
6/9/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	-	-	3	3	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
6/9/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	6/9/2018	-	1	1	Requires a well shutdown or well shut-in	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/10/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	6	6/11/2018 6/25/2018	Handheld OGI	1	1	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	-	-	1	1	Requires a well shutdown or well shut-in	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/25/2018	Valve	6	6/11/2018	Handheld OGI	2	2	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	1	6/27/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
6/25/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	9	6/27/2018	Handheld OGI	6	6	Requires a well shutdown or well shut-in	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska

Location: U_Pad

Latitude (NAD83): 70.30037

Longitude (NAD83): -148.93122

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/7/2017	12:58:00 PM	1:32:00 PM	47	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair of one item occurred more than 30 days after the date of leak discovery, a daily verification video and wellsite photo were not taken for one monitoring survey, two items on delay of repair were not repaired during two planned well shutdowns, and two items on delay of repair were not repaired during the next planned well shutdown.	Inside skids and well houses, high winds outside of 21 mph
1/7/2018	9:00:00 AM	2:30:00 PM	-19	Clear	0	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
2/11/2018	12:00:00 PM	1:00:00 PM	14	Clear	6	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/21/2018	10:29:00 AM	12:38:00 PM	60	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
4/22/2018	12:48:00 PM	1:57:00 PM	50	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
5/20/2018	9:27:00 AM	10:01:00 AM	65	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/25/2018	9:12:00 AM	3:13:00 PM	53	Partly Cloudy	3.6	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	5/14/2018 5/20/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	2	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/7/2017	Valve	-	4/7/2018 4/21/2018 7/6/2018	Handheld OGI Bubble Check	3	-	Requires a well shutdown or well shut-in	3	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
1/7/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	2	1/14/2018 4/22/2108	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
2/11/2018	Valve	2	1/7/2018 4/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/21/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	1	5/14/2018	Handheld OGI	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
4/22/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	5/14/2018	Handheld OGI	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
5/20/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
5/20/2018	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	5/20/2018	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/25/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: V Pad

Latitude (NAD83): 70.32732

Longitude (NAD83): -149.26781

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/18/2017	13:40:00 AM	13:45:00 PM	42	Overcast	0	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The resurvey of one item occurred more than 30 days after the repair, and 15 items on the delay of repair list were not repaired during the next planned well shutdown.	
1/5/2018	10:15:00 AM	11:00:00 AM	7	Overcast	5	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
6/22/2018	9:24:00 AM	3:30:00 PM	47	Fog	1	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/27/2018	10:20:00 AM	1:05:00 PM	45	Fog	15	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outdoor items not inspected because of wind

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	2/14/2018 4/29/2018 4/30/2018	Handheld OGI	6	-	Requires a well shutdown or well shut-in	6	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
9/18/2017	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	5/18/2018 6/22/2108 6/25/2018 7/20/2018	Handheld OGI Bubble Check	9	-	Requires a well shutdown or well shut-in	9	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
1/5/2018	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
6/22/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	4	6/22/2018 6/23/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
6/27/2018	Valve	3	6/22/2018 7/20/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: W Pad

Latitude (NAD83): 70.29654

Longitude (NAD83): -149.09575

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/9/2017	6:20:00 AM	8:30:00 AM	43	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of five items occurred more than 30 days after the repair, the resurvey date was not recorded for two items, nine items on delay of repair were not repaired during the next planned well shutdown, and 26 items on delay of repair were not repaired during two planned well shutdown.	
1/6/2018	11:00:00 AM	12:35:00 PM	-9	Clear	17	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
3/30/2018	8:00:00 AM	4:00:00 PM	34	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
3/31/2018	10:23:00 AM	3:50:00 PM	68	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Skids
6/26/2018	10:27:00 AM	11:35:00 AM	44	Fog	5.4	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	1/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Meter	-	1/24/2018 1/27/2018 1/30/2018 5/31/2018 7/1/2018 7/3/2018	Handheld OGI Bubble Check	10	-	Requires a well shutdown or well shut-in	10	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	1/24/2018 1/28/2018 1/31/2018 2/23/2018 5/31/2018 6/25/2018 6/30/2018 7/1/2018 7/3/2018	Handheld OGI Bubble Check	22	-	Requires a well shutdown or well shut-in	22	-
9/9/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
1/6/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
3/30/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	7	3/30/2018 5/12/2018 5/20/2018	Handheld OGI	3	-	Requires a well shutdown or well shut-in	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	11	5/10/2018 5/31/2018 6/30/2018 7/1/2018 7/3/2018	Handheld OGI Bubble Check	11	1	Requires a well shutdown or well shut-in	1	-
3/31/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-
6/26/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	7/28/2018	Bubble Check	1	-	Requires a well shutdown or well shut-in	1	-

**BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa
Greater Prudhoe Bay, Alaska**

Location: Z Pad

Latitude (NAD83): 70.29812

Longitude (NAD83): -149.19765

Table 1. Monitoring Survey Details ¹												
Survey						Technician		Monitoring Instrument			Deviations From Monitoring Plan	Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Type	Make/Model	Serial Number		
9/23/2017	8:18:00 AM	9:10:00 AM	36	Overcast	6	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	17 items on the delay of repair list were not repaired during the next planned well shutdown.	
1/6/2018	11:00:00 AM	12:35:00 PM	-9	Clear	17	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
4/4/2018	9:30:00 AM	10:03:00 AM	22	Partly Cloudy	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
4/9/2018	9:55:00 AM	2:50:00 PM	9	Clear	16	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		Well houses
4/16/2018	9:25:00 AM	1:02:00 PM	58	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		Indoor mods
5/23/2018	10:35:00 AM	4:10:00 PM	32	Overcast	12	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and modules, only scanned in lower wind conditions below 6 mph
5/25/2018	12:10:00 PM	3:45:00 PM	26.8	Overcast	9	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and modules, only scanned in lower wind conditions below 6 mph

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
before 8/2/2017	Compressor	-	-	-	-	-	-	-	-
	Connector	-	4/30/2018	Handheld OGI	1	-	Requires a well shutdown or well shut-in	1	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
9/23/2017	Valve	-	3/12/2018 5/12/2018 5/23/2018 7/21/2018 7/22/2018 7/27/2018	Handheld OGI Bubble Check	16	3	Requires a well shutdown or well shut-in	16	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	-	-	-

Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
1/6/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
4/4/2018	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
4/9/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	4/4/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	4	4/9/2018 4/10/2018 4/11/2018 4/12/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
4/16/2018	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	1	4/16/2018	-	-	-	-	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-

Table 2. Monitoring Survey Results									
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair			Not Repaired as Required	Difficult/ Unsafe Components Monitored
					During Reporting Period	As of August 2, 2018	Explanation		
5/23/2018	Compressor	-	-	-	-	-	-	-	-
	Connector	2	5/23/2018	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
5/25/2018	Valve	6	5/23/2018 7/21/2018	Handheld OGI Bubble Check	4	1	Requires a well shutdown or well shut-in	-	-
	Compressor	-	-	-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	-
	Instrument	-	-	-	-	-	-	-	-
	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-	-	-	-	-	-
5/25/2018	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	2	7/21/2018	Bubble Check	2	-	Requires a well shutdown or well shut-in	-	-